

Stress Response

The body's stress response is a **complex physiological reaction** that occurs when it perceives a threat or stressor. This response is designed to help us react quickly and effectively in dangerous situations and is commonly known as the **fight-or-flight** response.

It is important to note that while the stress response is an **adaptive mechanism** designed to protect us, chronic or prolonged stress can have detrimental effects on our overall health and well-being. It can lead to a range of physical and mental health issues, including cardiovascular problems, weakened immune function, and mood disorders. **It can also exacerbate existing conditions, chronic symptoms, and autoimmune disorders.**

At [Comprehensive Rheumatology Center](#), we understand the impact of stress on the body and offer **comprehensive care** for patients experiencing stress-related conditions using [MBSR](#) - **Mindfulness-Based Stress Reduction**. MBSR offers **evidence-based techniques** to manage stress, helping individuals develop healthier coping mechanisms.

Seek professional guidance and treatment for stress-related health concerns by contacting our Woodland Hills office at **(818) 598-0000** to schedule an appointment.

What is Stress?

Stress is a whole-body response experienced by us all. It is important to note that it is not only those with socially perceived “high-stress” jobs or lifestyles who experience its insidious effects on their bodies. The **physiological effects** of stress can result from one very large event, or from many small but significant experiences a person may have. The fact is, stress affects everyone, particularly those who have:

- Chronic health conditions
- Financial stressors such as large bills or debt
- Mobility issues due to chronic conditions or disability
- Recent or upcoming major life changes
- Chaotic, unpredictable, or unsafe home or work environments
- A history of trauma or abuse
- Troubled relationships with friends, family, or authority figures
- Other ongoing social, physical, or environmental stressors

Stress is the perceived inability to deal with the exaggerated urgency or severity of a threat.

In a stress state, our body releases an incredible 27 hormones! Alongside these hormones, it also releases neurotransmitters, triggering a **cascade of changes** throughout our body. When we experience stress, whether it be from external factors such as work deadlines or internal factors such as worry or anxiety, our body prepares itself to either confront the threat head-on or escape from it. Prolonged or chronic stress can result in the overproduction and utilization of stress hormones, exacerbating existing conditions, and resulting in both short-term and long-term problems. This is why it is important to manage stress, by reducing it when possible, and moderating the effects of the body's stress response.

See how [MBSR](#) can help you with stress management. Call Comprehensive Rheumatology at **(818) 598-0000** or use our simple [online form](#) to book a consultation.

How Does Stress Affect the Immune System?

The immune system is greatly affected by the stress response. During periods of stress, the immune system becomes suppressed, making you more susceptible to infections and illnesses. Additionally, heightened alertness and focus are common during the stress response, as the body **prepares itself** to deal with potential threats.

Fight, Flight, Freeze, Fawn

Fight, flight, freeze, and fawn are four distinct responses that individuals may exhibit when faced with stress or danger. These responses are intricate defense mechanisms designed to protect oneself from harm. Understanding these responses is crucial in developing **effective coping strategies** for managing stressful situations.

Fight Response

- Sudden surge of energy
- Urge to confront the perceived threat head-on
- Aggression, assertiveness, and a readiness to defend oneself

In the face of stress or danger, individuals who display the fight response may become loud, combative, argumentative, or even engage in **physical altercations**.

Flight Response

- Desire to escape
- Need to avoid the threatening situation altogether
- Intense need to flee, seeking safety and distance from the source of stress

The flight response can manifest as physically running away or leaving the situation abruptly, feeling restlessness and an urge to get up or move around, or **avoiding confrontation** altogether.

Freeze Response

- Temporary immobilization
- "Playing dead" reaction
- Inability to move or take action

The freeze response is thought to be an **evolutionary survival mechanism**, as remaining still can sometimes provide camouflage or make one less noticeable to predators. However, in modern-day situations, individuals may experience feelings of being stuck, overwhelmed, or paralyzed by fear.

Fawn Response

- Attempting to appease or please the perceived threat
- Effort to ensure safety or avoid harm
- Effort to avoid conflict by placation

The fawn response is a more **recently recognized** stress response. Individuals exhibiting the fawn response may display excessively accommodating behaviors, seeking to pacify others at their own expense. This response often stems from a deep-rooted fear of rejection or abandonment. It can also be an attempt to avoid perceived physical dangers.

Effects of Stress on Body and Mind

Stress is a **complex response** to various psychological and physiological factors, including illness and chronic physical pain. Chronic or prolonged stress can have various negative effects on both physical and mental health and overall well-being:

Increased Heart Rate and Blood Pressure

- Stress hormones like adrenaline and cortisol increase heart rate and blood pressure to redirect blood flow to the muscles.
- Due to prompting the heart to beat faster and the blood vessels to constrict, this leads to high blood pressure.
- Over time, chronic stress can contribute to the development of cardiovascular problems, including hypertension, and an increased risk of heart disease and stroke.

Digestive System Changes

- Stress can affect the digestive system, leading to symptoms such as nausea, indigestion, acid reflux, stomach cramps, or changes in bowel habits.
- Chronic stress may contribute to digestive disorders and may contribute to conditions like irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD). [\(1\)](#)

Muscle Tension and Pain

- Stress hormones can cause muscles to tense up, as a preparation for physical activity, as a protective mechanism, and to help stabilize an injured area.
- Chronic muscle tension can contribute to conditions such as back pain and musculoskeletal issues.

Headaches

- Chronic muscle tension caused by stress can also lead to tension headaches and migraines.

Impaired Cognitive Function

- Stress activates the amygdala and hypothalamus, leading to the release of stress hormones. This can enhance alertness and cognitive function in the short term but causes a whole host of problems when the stress response is prolonged or chronic.
- Chronic stress is associated with changes in the structure and function of the brain, particularly the hippocampus, which is involved in memory and learning.
- Chronic stress can also negatively impact cognitive functions such as concentration and decision-making.

Mental Health Issues

- Stress can cause anxiety and a depressed mood. Chronic stress is a significant risk factor for the development or exacerbation of mental health conditions, including anxiety disorders, depression, and other mood disorders.

Insomnia and Sleep Disturbances

- Stress hormones can interfere with normal sleep patterns, leading to difficulties falling asleep or staying asleep. This, in turn, can exacerbate stress and create a cycle of sleep disturbances.

Skin Problems

- Stress can exacerbate skin conditions such as acne, eczema, and psoriasis.

- Additionally, chronic stress may impair wound healing and contribute to premature aging of the skin.

Respiratory System Issues

- Adrenaline stimulates the respiratory system, increasing the rate of breathing to supply more oxygen to the body to meet the increased demand during the stress response.
- Chronic stress can contribute to respiratory issues and exacerbate conditions such as asthma.

Increased Blood Sugar Levels

- Cortisol stimulates the release of glucose into the bloodstream, providing additional energy to the muscles. This can be helpful in a fight-or-flight situation but may lead to metabolic issues if stress is chronic.
- Stress can influence insulin sensitivity. Prolonged stress can contribute to insulin resistance and type 2 diabetes. [\(2\)](#)

Weight Gain

- Chronic stress is associated with changes in appetite. Stress-induced overeating and changes in metabolism can be contributing factors to weight gain, particularly around the abdominal area. This is partly due to the role of cortisol in promoting the storage of fat.

Reproductive Issues

- Stress can disrupt reproductive hormones, affecting menstrual cycles in women.
- It contributes to sexual dysfunction in both men and women and may also impact fertility.

Suppressed Immune System

- Prolonged exposure to stress hormones can suppress the immune system, making individuals more susceptible to infections and illnesses.
- Chronic stress can weaken the immune response and contribute to the development of autoimmune disorders.
- Chronic stress, whether physical or psychological, can potentially interfere with healing from an injury.

Inflammation and Chronic Pain

- Cortisol plays a vital role in regulating the immune system's response to inflammation. **Prolonged or excessive stress can lead to an overactive immune response, causing chronic inflammation.**

- Chronic inflammation not only exacerbates existing pain, but can also contribute to the development of new pain conditions, and cause chronic pain. Chronic pain refers to persistent pain that lasts for weeks, months, or even years. [\(3\)](#)

Increased Risk of Chronic Conditions

- Stress and chronic symptoms are **intricately linked**, with both mental and physical health playing significant roles in this connection.
- Prolonged exposure to stress has been associated with an increased risk of developing chronic conditions such as cardiovascular disease, diabetes, and chronic back pain, as well as worsening migraines, PPPD, asthma, Fibromyalgia, Chronic Fatigue Syndrome, IBS, and IBD.

Autoimmune Disorders

- Research has shown that there is a **clear link** between stress and immune system dysfunction, which can contribute to the development and exacerbation of autoimmune disorders. [\(4\)](#) **Dysregulation of the immune system can lead to an increased risk of developing autoimmune conditions or worsening existing ones.** Stress can exacerbate everything from arthritis pain to psoriasis.

Strategies to manage stress can help mitigate the negative impact of stress on the body.

Research-backed strategies include meditation, mindfulness-based stress reduction practices such as MBSR, regular exercise, and social support. If your experience of stress has become chronic or overwhelming, or if you are suffering from the effects of stress on your mind or body, **seeking professional help** from a healthcare provider or mental health professional is advisable.

For more information on managing chronic stress and Mindfulness-Based Stress Reduction (MBSR), see the [MBSR](#) page. For more specific questions or to participate in the MBSR program please feel free to call us at **(818) 598-0000** for a personal consultation to assess your needs, or [schedule an appointment](#) on our website.

What Does MBSR Teach?

In our [MBSR](#) program, you will learn **how your body's stress response works**, how to recognize when it is activated, and how to manage that response using a variety of techniques and activities. You will also learn how to keep your baseline low using mindfulness, meditation and mindful movement, to buy yourself **time and opportunity** to recognize and manage your stress response.

How Much is a Mindfulness-Based Stress Reduction Program in Los Angeles?

The investment required for participating in the Mindfulness-Based Stress Reduction (MBSR) program will vary depending on **several factors** and **may be covered by your insurance**. At Comprehensive Rheumatology Center, we understand that financial considerations are an important aspect of any treatment decision. Therefore, we strive to provide comprehensive information regarding the cost of MBSR to help you make an informed choice.

Your treatment will include a **rheumatological consultation** and ten MBSR follow-up visits. The cost to you will depend on your particular insurance provider, your plan's copay, and your deductible. When you call our Woodland Hills office at **(818) 598-0000** to book a consultation, we will check your insurance coverage and let you know what your out-of-pocket cost would be. You can also ask to speak to our **MBSR expert**, Sharzad Firooz, if you have further questions regarding the MBSR program and if it is a good fit for you. Alternatively, fill out a [simple form](#) on our website and we will be in touch as soon as possible.

References

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